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EXAMINER

HUTTON JR, WILLIAM D

ART UNIT

PAPER NUMBER

2176

DATE MAILED: 12/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/758,969

Applicant(s)

EBRAHIMI ET AL.

Examiner

Doug Hutton

Art Unit

2176

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 51-55, 57-66, 68, 70-88 and 90-101 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 51-55, 57-66, 68, 70-88 and 90-101 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>20061024</u> . | 6) <input type="checkbox"/> Other: _____  |

***Applicant's Response***

In Applicant's Response dated 09/28/2006, Applicant amended the Specification, amended Claims 51, 53, 57-59, 62-64, 68, 71-83, 88 and 90-96, added new Claims 99-101, cancelled Claims 50, 56, 67, 69 and 89, and argued against all objections and rejections previously set forth in the Office Action dated 06/28/2006.

Based on the amendments and Applicant's remarks, the objections to the Specification and the Drawings previously set forth are withdrawn. Based on the amendments and Applicant's remarks, the objections to the Claims previously set forth are withdrawn. Based on the amendments and Applicant's remarks, the rejections of the Claims previously set forth are withdrawn.

***Information Disclosure Statement***

The information disclosure statement filed 10/24/2006 fails to comply with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609 because the references listed therein were previously listed on a PTO-892 by the examiner.

It has been placed in the application file, but the information referred to therein has not been considered as to the merits. Applicant is advised that the date of any re-submission of any item of information contained in this information disclosure statement or the submission of any missing elements will be the date of submission for purposes of determining compliance with the requirements based on the time of filing the

statement, including all certification requirements for statements under 37 CFR 1.97(e).  
See MPEP § 609.05(a).

### ***Claim Objections***

Claims 51 and 77 are objected to because of the following informalities:

- In Claim 51, the phrase “*page components*” in Lines 11-12 should be amended to — [[page]] candidate components — because “***candidate components***,” rather than “***page components***,” are used in the “*default composition of the web page*” (see Lines 6-7). Claim 77 has the same problem (see Line 13).
- In Claim 51, the phrase “*each page component*” in Line 16 should be amended to — each respective page component — in order to clearly indicate that **each** “*page component*” has a “*nominal value*,” an “*effectiveness*,” a “*relevancy*” to the request, and a “*placement*” on the web page, as subsequently recited in the claim (see Lines 17-20). Claim 77 has the same problem (see Line 17).

Claim 62 is objected to because of the following informalities:

- The phrase “*based on of a geographic location of the user*” in Line 3 should be amended to — based on [[of]] a geographic location of the user — so that the phrase is grammatically correct.

Claim 90 is objected to because of the following informalities:

- The phrase “*runtime information describing*” in Line 3 should be deleted because the phrase is unnecessary and so that the claim reads more clearly.
- The phrase “*a web page*” in Line 4 should be amended to — [[a]] the web page — because the web page is previously mentioned in the claim (see Line 1).
- The phrase “*receiving a request from a user*” in Line 6 should be amended to — receiving [[a]] the request from [[a]] the user — because the request and the user are previously mentioned in the claim (see Line 1).
- The term “*wherein*” in Line 15 should be relocated to the beginning of Line 16 because the term modifies the limitation recited in Lines 16-17.
- The phrase “*each page component*” in Line 18 should be amended to — each respective page component — because multiple “page components” may be included in the web page (see Line 17).

Claim 92 is objected to because of the following informalities:

- The phrase “*determining the nominal value of the candidate component as a fifth function of a relevancy of the candidate component to the request*” in Lines 3-4 should be amended to — determining the nominal values of the candidate components as a fifth function of ~~a relevancy~~ the relevance of ~~[[the]] each~~ candidate component to the request — because multiple “*candidate components*” may be included in the “*subset of the candidate components*” (see Claim 90, Lines 12-13), because the “*relevance*” is previously recited in the

claims (see Claim 90, Line 21), and in order to correspond to the language recited in subsequent limitations (e.g., see Claim 93, Line 4 and Claim 94, Line 4).

Claim 93 is objected to because of the following informalities:

- The phrase “*determining the nominal value of the candidate component as a sixth function of a relevance of the candidate component to a demographic profile of the user*” in Lines 3-4 should be amended to — determining the nominal values of the candidate components as a sixth function of ~~[[a]]~~ the relevance of ~~[[the]]~~ each candidate component to a demographic profile of the user — because multiple “*candidate components*” may be included in the “*subset of the candidate components*” (see Claim 90, Lines 12-13) and because the “*relevance*” is previously recited in the claims (see Claim 90, Line 21).

Claim 94 is objected to because of the following informalities:

- The phrase “*determining the nominal value of the candidate component as a seventh function of a relevance of the candidate component to a behavioral profile of the user*” in Lines 3-4 should be amended to — determining the nominal values of the candidate components as a seventh function of ~~[[a]]~~ the relevance of ~~[[the]]~~ each candidate component to a behavioral profile of the user — because multiple “*candidate components*” may be included in the “*subset of the*

*candidate components*" (see Claim 90, Lines 12-13) and because the "*relevance*" is previously recited in the claims (see Claim 90, Line 21).

Claim 95 is objected to because of the following informalities:

- The term "*wherein*" in Line 3 should be relocated to the beginning of Line 4 because the term modifies the limitation recited in Lines 4-5.

Claim 96 is objected to because of the following informalities:

- The phrase "*a eighth function*" in Line 2 should be amended to — an eighth function — so that the phrase is grammatically correct.

Claim 98 is objected to because of the following informalities:

- The phrase "*communicating a component registration change*" in Line 2 should be amended to — communicating a candidate component registration change — because that is how the element is previously described in the claims (see Claim 97, Line 6).

Appropriate correction is required.

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 90-98 and 101 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

*Claims 90-98 and 101:*

The language of the claim raises a question as to whether the claim is directed merely to an abstract idea that would not result in a practical application producing a concrete, useful, and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101.

In summary, Claim 90 recites a “*system*” for building a web page comprising a “*runtime database*” (see Lines 3-4) and a “*runtime server*” (see Lines 5-13). However, the “*system*” is comprised solely of computer software modules. Thus, the recited invention is computer software *per se*.

A computer program is merely a set of instructions capable of being executed by a computer. The computer program itself is not a statutory process in that it does not include the computer-readable medium needed to realize the functionality of the computer program. Thus, as currently recited, Claim 90 is directed to an abstract idea that does not produce a concrete, useful and tangible result.

Additionally, Claim 90 recites that the computer software modules comprise “*instructions for*” performing functions. Thus, Claim 90 fails to positively recite a concrete, useful and tangible result that is produced by the “*computer system*.”



Claims 91-98 and 101 are dependent upon Claim 90 and include similar claim language, and are thus rejected using the same rationale.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

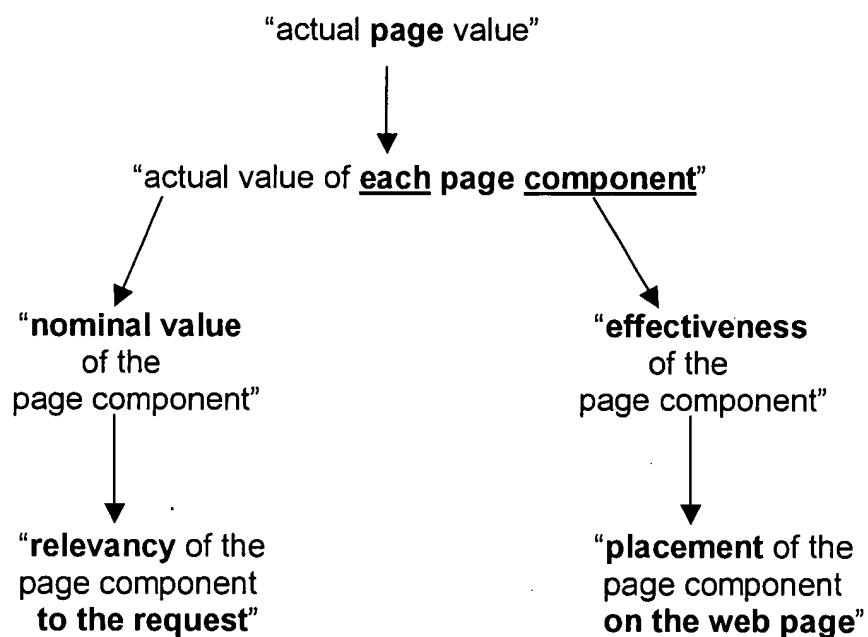
Claims 51-55, 57-66, 68, 70-88 and 90-101 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claims contain subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

*Claims 51-55, 57-66, 68, 70-88 and 90-101:*

Claim 51 recites an "*actual page value*" of the web page (see Line 11) that is determined based on "*actual values*" of the page components placed on the web page (see Lines 14-15), wherein the "*actual value*" of each page component is determined based on a "*nominal value*" of the page component (see Lines 15-17) and an "*effectiveness*" of the page component on the web page (see Lines 17-18). Further, the "*nominal value*" of each page component is determined based on a "*relevancy*" of the page component to the user's request (see Lines 18-19), and the "*effectiveness*" of

each page component is determined based on a "*placement*" of the page component on the web page (see Lines 19-20).

The following is a hierarchy of that data organization:



Thus, the "*actual page value*" of the web page is determined by:

- the "*nominal value*" of each page component placed on the web page; and
- the "*effectiveness*" of each page component placed on the web page.

The "*nominal value*" of each page component placed on the web page is a number value that is calculated, as indicated in Figures 4A, 4B, 5A and 5B. The

"*effectiveness*" of each page component placed on the web page is also a number value that is calculated, as indicated in Figures 4A, 4B, 5A and 5B.

It is clear that the calculation of the "*nominal value*" of each page component is based on the "*relevancy*" of the page component to the user's request and that the calculation of the "*effectiveness*" of each page component placed on the web page is based on the "*placement*" of the page component on the web page. However, based on the examiner's understanding of the present invention, it is unclear how the number values for the "*nominal value*" of each page component and the "*effectiveness*" of each page component placed on the web page are calculated.

The Specification clearly indicates that the "*actual value of each page component*" (see Claim 51, Line 15) equals the "*nominal value*" of the page component multiplied by the "*effectiveness*" of the page component (see Specification → Page 12, Line 3). However, the Specification fails to indicate how the number values for the "*nominal value*" of each page component and the "*effectiveness*" of each page component placed on the web page are calculated. The examiner has searched the Specification of the present application for formulas to make these calculations and has failed to locate any formulas. If Applicant believes that the examiner is incorrect, then Applicant should specify the page and line number of each formula's location in the Specification.

Moreover, it is unclear whether the recited "*relevancy*" - upon which the "*nominal value*" is based - is a number value. If the "*relevancy*" is a number value, then it is

unclear **how** that number value is **generated**. If the “*relevancy*” **is not** a number value, then it is unclear **how** the “*relevancy*” **affects** the “*nominal value*” of the page component since the “*nominal value*” **is** a number value.

If the “*relevancy*” **is** a number value, then the number value for the “*relevancy*” could either be **arbitrarily** assigned by the computer programmer (i.e., a human being) who is in charge of maintaining the database of possible web page components, or calculated using a formula.

If the “*relevancy*” is arbitrarily assigned at the whim of a human being, then the invention recited in Claim 51 is indefinite under 35 U.S.C. 112, second paragraph, in that the invention is not “concrete.” That is, the recited invention does not have assured, repeatable, objective results, because a human being arbitrarily assigns number values for the “*relevancy*.”

If the “*relevancy*” is calculated using a formula, then the invention recited in Claim 51 is nonenabling in that the claim contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. That is, the examiner cannot locate any mention of a formula used to calculate the recited “*relevancy*.” If Applicant believes that the examiner is incorrect, then Applicant should specify the page and line number of the formula's location in the Specification.

Similarly, it is unclear whether the recited “*placement*,” upon which the “*effectiveness*” is based, is a number value. If the “*placement*” **is** a number value, then

it is unclear **how** that number value is ***generated***. If the "*placement*" **is not** a number value, then it is unclear **how** the "*placement*" ***affects*** the "*effectiveness*" of the page component since the "*effectiveness*" **is** a number value.

If the "*placement*" **is** a number value, then the number value for the "*placement*" could either be ***arbitrarily*** assigned by the computer programmer (i.e., a human being) who is in charge of maintaining the database of possible web page components, or calculated using a formula.

If the "*placement*" is arbitrarily assigned at the whim of a human being, then the invention recited in Claim 51 is indefinite under 35 U.S.C. 112, second paragraph, in that the invention is not "concrete." That is, the recited invention does not have assured, repeatable, objective results, because a human being arbitrarily assigns number values for the "*placement*."

If the "*placement*" is calculated using a formula, then the invention recited in Claim 51 is nonenabling in that the claim contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. That is, the examiner cannot locate any mention of a formula used to calculate the recited "*placement*." If Applicant believes that the examiner is incorrect, then Applicant should specify the page and line number of the formula's location in the Specification.

Accordingly, Claim 51 contains subject matter which was not described in the Specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claims 77 and 90 correspond to Claim 51 and are rejected using the same rationale.

Claims 52-55, 57-66, 68, 70-76, 78-88 and 91-101 are dependent upon Claims 51, 77 and 90 and are thus rejected using the same rationale.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 51-55, 57-66, 68, 70-88 and 90-101 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

*Claims 51-55, 57-66, 68, 70-88 and 90-101:*

Claim 51 recites a method for building a web page, comprising the steps of:

1. **identifying possible components** for a web page (see Lines 6-7), **each** of the components having a "**nominal value**" (see Lines 7-8), and
2. **from the possible components, selecting page components** for a web page (see Lines 9-10).

Claim 51 also specifies that the selection of the page components is **determined** by an “**optimization**” of an “**actual value**” of the **web page** (see Lines 10-11). The claim further specifies that the “**actual value**” of the **web page** is a “function” of the “**actual value**” of **each** selected page **component** placed onto the web page (see Lines 14-15). Finally, the claim specifies that the “**actual value**” of **each** selected page **component** placed onto the web page is **determined** by a “function” of:

1. the “**nominal value**” of the page **component**, and
2. an “**effectiveness**” of the page **component** (see Lines 15-18).

Thus, the selection of web page components ultimately depends upon the “*nominal value*” and the “*effectiveness*” of the web page components.

Claim 51 is indefinite in **two** respects, both of which relate to the “selected components” recited in the claim. The “selected components” recited in Claim 51 comprise:

1. content (see Specification → Pages 8-9, Paragraph 0032),
2. hyperlinks (see Specification → Pages 8-9, Paragraph 0032), and
3. advertisements (see Specification → Pages 8-9, Paragraph 0032).

With regard to the **first** aspect of indefiniteness (i.e., the “*nominal value*” of a web page component), Claim 51 is indefinite as follows. Each component has a “nominal value” (see Specification → Page 9, Paragraph 0035, second sentence), which may change as a function of a user’s request or the user’s profile (see Specification → Page

9, Paragraph 0035, third sentence). The “nominal value” of a component depends upon a number of factors, such as:

1. financial impact,
2. relevancy, and
3. form (see Specification → Page 10, Paragraph 0036, first and second sentences).

The “formulation” used to determine a “nominal value” can vary (see Specification → Page 10, Paragraph 0036, first and second sentences). This “formulation” appears to be an **arbitrary, subjective** determination made by a computer programmer (i.e., a human being). That is, a computer programmer may select any numerical value as the “nominal value” of a component. The examiner notes that the Specification of the present invention fails to give a single example any concrete, objective, mathematical formula used to calculate the “nominal value” of a web page component.

Essentially, rather than trying to patent a concrete, objective method used to calculate a “nominal value” of a web page component, Applicant is attempting to patent the abstract **idea** of arbitrarily selecting a “nominal value” of a web page component and thereby **usurp all possible formulas** for calculating an “*actual page value*” of a web page component. Claim 51 recites neither a specific formula for, nor the specific variables used in, calculating a “nominal value” of a web page component. Instead, Claim 51 simply recites “*a nominal value of the page component*” (see Line 10) that is used in other calculations.



The examiner notes that reciting that the “*nominal value*” is “*based on a relevancy of the page component to the request*” (see Lines 18-19) does not cure the indefiniteness of the “nominal values” of the page components, because it is still unclear how the “*relevancy*” affects the “*nominal value*.” Also, the way such a “*relevancy*” would affect the “*nominal value*” of the page component would likely be an **arbitrary, subjective** determination made by a computer programmer rather than a calculation performed using a mathematical formula.

With regard to the **second** aspect of indefiniteness (i.e., the “*effectiveness*” of a web page component), Claim 51 is indefinite as follows. Each component has an “effectiveness” (see Specification → Page 7, Paragraph 0027, last sentence), which depends on factors such as placement and clutter (see Specification → Page 12, Paragraph 0043, second sentence). The “formulation” used to determine an “effectiveness” can vary (see Specification → Page 12, Paragraph 0043, first sentence). The “effectiveness” of a component depends upon a number of factors, such as:

1. placement, and
2. clutter (see Specification → Page 12, Paragraph 0043, second sentence).

This “formulation” appears to be an **arbitrary, subjective** determination made by a computer programmer (i.e., a human being). That is, a computer programmer may select **any** numerical value as the “effectiveness” of a component. The examiner notes that the Specification of the present invention fails to give a single example any

concrete, objective, mathematical formula used to calculate the “effectiveness” of a web page component.

Essentially, rather than trying to patent a concrete, objective method used to calculate an “effectiveness” of a web page component, Applicant is attempting to patent the abstract *idea* of arbitrarily selecting an “effectiveness” of a web page component and thereby ***usurp all possible formulas*** for calculating a “value” of a web page component. Claim 51 recites neither a specific formula for, nor the variables used in, calculating an “effectiveness” of a web page component. Instead, Claim 51 simply recites “*an effectiveness of the page component*” (see Line 11) that is used in other calculations.

The examiner notes that reciting that the “*effectiveness*” is “*based on a placement of the page component on the web page*” (see Lines 19-20) does not cure the indefiniteness of the “effectiveness” of the page components, because it is still unclear how the “*placement of the page component on the web page*” affects the “*effectiveness*.” Also, the way such a “*placement*” would affect the “*effectiveness*” of the page component would likely be an **arbitrary, subjective** determination made by a computer programmer rather than a calculation performed using a mathematical formula.

In summary, the formulas to calculate the recited “*nominal value*” and the recited “*effectiveness*” of a page component may include any number of variables and

mathematical operations, and the formulas used to make the calculations are not specified. Thus, the examiner cannot determine the scope of Claim 51.

Claims 77 and 90 correspond to Claim 51 and are rejected using the same rationale.

Claims 52-55, 57-66, 68, 70-76, 78-88 and 91-101 are dependent upon Claims 51, 77 and 90 and are thus rejected using the same rationale.

Applicant must amend the claims to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

*Claims 99-101:*

Claim 99 recites "*the **effectiveness** of the **page component** is computed by a sum of the squares of the areas occupied by the page components on the web page*" in Lines 1-3 (emphasis added). The Specification of the present invention states:

"... placement and **clutter** are **factors** that are usually considered ***when determining the effectiveness***"

(emphasis added; see Specification → Page 12, Paragraph 0043, second sentence); and

“... simple mathematical models can be formulated, such as using the sum of the squares of the areas occupied by different components **as a measure of the unclutteredness**” (emphasis added; see Specification → Page 12, Paragraph 0045, first sentence).

Thus, the present invention describes “clutter” as being a single factor in the determination of effectiveness and uses “the sum of the squares of the areas occupied by different components” **as a measure of the, unclutteredness**. That is, the “*sum of the squares of the areas occupied by different components*” recited in Claim 99 is used to compute “clutter” rather than “effectiveness.”

Moreover, **each** page component on the web page has its **own** measure of “effectiveness” (see Figures 4B and 5B). The subject matter described on Page 12 in the Specification appears to be an **overall** measure of the “unclutteredness” of the **entire** web page, whereas the subject matter recited in Claim 99 appears to be a measure of the “effectiveness” for **each** individual page component.

For these reasons, Claim 99 is indefinite.

The examiner notes that nowhere in the original Specification of the present application is a formula for calculating the “*effectiveness*” of the page component

specified. If Applicant believes that the examiner is incorrect, then Applicant should specify the page and line number of the formula's location in the Specification.

Claims 100 and 101 correspond to Claim 99 and are rejected using the same rationale.

Applicant must amend the claims to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 51-55, 57-66, 68, 70-88 and 90-101 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kamangar et al., U.S. Patent Application Publication No. US 2003/0046161 (hereinafter, "Kamangar"), in view of McElfresh et al., U.S. Patent Application Publication No. US 2003/0149938 (hereinafter, "McElfresh").

*Claim 51:*

*Kamangar discloses a method for building a web page comprising:*

- *receiving a request from a user;*
- *dynamically composing a web page in response to the request; and*
- *making the web page available to the user,*

*wherein the step of dynamically composing a web page comprises:*

- *identifying a set of candidate components for the web page, each candidate component in the set of candidate components having a nominal value (see Page 4, Paragraph 0040, second and third sentences → Kamangar discloses this limitation in that the system obtains a list of candidate ads based on performance parameters for each of the candidate ads); and*
- *selecting a subset of the candidate components for placement on the web page as page components (see Page 5, Paragraph 0049, first and second sentences → Kamangar discloses this limitation in that the system returns the highest scoring ads for display on the web page), wherein the selecting is determined by an optimization of an actual page value of the web page (see Page 1, Paragraph 0012, first sentence → Kamangar discloses this limitation in that the system maximizes the economic values of the ads displayed on the web page),*

*further wherein the actual page value of the web page is a function of a respective actual value of each page component placed on the web page (see Page 4, Paragraph 0043, second and third sentences → Kamangar discloses*

this limitation in that the system returns the ads with the highest scores to the web page), *and wherein the actual value of each page component placed on the web page is determined by a nominal value of the page component and an effectiveness of the page component on the web page* (see Page 4, Paragraph 0040, fifth sentence; see Page 4, Paragraph 0044, last sentence; see Page 5, Paragraph 0048, second and third sentences; see Page 5, Paragraph 0049, last sentence; see page 5, Paragraph 0050, second through fourth sentences → Kamangar discloses this limitation in that the system considers many different factors in calculating the scores for the returned ads, such as those discussed in the cited text), *wherein the nominal value of the page component is based on a relevancy of the page component to the request* (see Page 4, Paragraph 0041 → Kamangar discloses these limitations in that the performance parameters of the ads may be keyword-dependent) *and the effectiveness of the page component is based on a placement of the page component on the web page* (see Page 2, Paragraph 0026, last sentence; see Page 2, Paragraph 0028, third sentence; see Page 3, Paragraph 0033, seventh sentence → Kamangar discloses this limitation in that the system selects ads for display on the web pages based on information concerning where to position the ads, the size and shape of the ads, and the display order of the ads), *and further wherein the effectiveness increases when the page component has a synergistic effect with another page component on the web page and the effectiveness decreases when the page component incurs distraction from*

*another page component on the web page* (see Page 4, Paragraph 0040, fifth sentence; see Page 4, Paragraph 0044, last sentence; see Page 5, Paragraph 0048, second and third sentences; see Page 5, Paragraph 0049, last sentence; see page 5, Paragraph 0050, second through fourth sentences → Kamangar discloses this limitation in that the system considers many different factors in calculating the scores for the candidate ads, such as those discussed in the cited text).

Kamangar fails to expressly disclose:

- *identifying a set of candidate components used in a **default composition** of the web page* (emphasis added); and
- *eliminating page components used in the default composition of the web page when such elimination increases the actual page value of the web page.*

McElfresh teaches:

- *identifying one or more page components used in a default composition of the web page; and*
- *eliminating a page components used in the default composition of the web page when such elimination increases the actual page value of the web page* (see Figures 1 and 2; see Page 3, Paragraphs 0031-0033 → McElfresh discloses these limitations in that the system replaces the web page title block with the highest scoring ad),



for the purpose of optimizing revenues generated by a web page (see Page 3, Paragraph 0031).

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method, disclosed in Kamangar, to include:

- *identifying one or more page components used in a default composition of the web page; and*
- *eliminating a page components used in the default composition of the web page when such elimination increases the actual page value of the web page,*

for the purpose of optimizing revenues generated by a web page, as taught by McElfresh.

*Claim 52:*

Kamangar fails to expressly disclose that:

- *the actual value of each page component placed on the web page is in a common unit of measure.*

McElfresh teaches that:

- *the actual value of each page component placed on the web page is in a common unit of measure (see Page 4, Paragraph 0039, last sentence; see Page*

4, Paragraph 0043, last sentence → McElfresh teaches this limitation in that the ranks the delivered set of ads according to calculations for the ads), for the purpose of optimizing revenues generated by a web page (see Page 3, Paragraph 0031).

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method, disclosed in Kamangar, to include that:

- *the actual value of each page component placed on the web page is in a common unit of measure,*

for the purpose of optimizing revenues generated by a web page, as taught by McElfresh.

*Claim 53:*

Kamangar fails to expressly disclose that:

- *the step of receiving a request from a user comprises receiving the request via a browser.*

McElfresh teaches that:

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- *the step of receiving a request from a user comprises receiving the request via a browser (see Page 5, Paragraph 0050, first and second sentences → McElfresh teaches this limitation, as clearly indicated in the cited text),*

for the purpose of optimizing revenues generated by a web page (see Page 3, Paragraph 0031).

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method, disclosed in Kamangar, to include that:

- *the step of receiving a request from a user comprises receiving the request via a browser,*

for the purpose of optimizing revenues generated by a web page, as taught by McElfresh.

*Claim 54:*

Kamangar discloses that:

- *the subset of candidate components include one or more of a content page component, a link page component, and an advertisement page component.*

*Claim 55:*

Kamangar fails to expressly disclose that:

- *the actual page value equals a sum of the actual values of the page components on the web page, and*
- *the actual value of each page component on the web page equals the nominal value of the page component multiplied by the effectiveness of the page component on the web page.*

McElfresh teaches that:

- *the actual page value equals a sum of the actual values of the page components on the web page (McElfresh teaches this limitation in that the value for the web page equals a sum of the values of the ads displayed on the web page), and*
- *the actual value of each page component on the web page equals the nominal value of the page component multiplied by the effectiveness of the page component on the web page (McElfresh teaches this limitation in that the value of each ad displayed on the web page is determined using the characteristics of a user and the performance stats),*

for the purpose of optimizing revenues generated by a web page (see Page 3, Paragraph 0031).

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method, disclosed in Kamangar, to include that:

- *the actual page value equals a sum of the actual values of the page components on the web page, and*
- *the actual value of each page component on the web page equals the nominal value of the page component multiplied by the effectiveness of the page component on the web page,*

for the purpose of optimizing revenues generated by a web page, as taught by McElfresh.

*Claim 57:*

Kamangar discloses:

- *determining a nominal value of a candidate component in said subset of the candidate components,*

*wherein the candidate component is an advertisement page component, and the determining is based on a revenue generated by placement of the advertisement page component on the web page (see Page 4, Paragraph 0040, second and third sentences → Kamangar discloses this limitation in that the system obtains a list of candidate ads based on performance parameters for each of the candidate ads).*

*Claim 58:*

Kamangar discloses:

- *determining a nominal value of a candidate component in said subset of the candidate components based on a relevancy of the candidate component to the request (see Page 4, Paragraph 0041 → Kamangar discloses this limitation in that the performance parameters of the ads may be keyword-dependent).*

*Claim 59:*

Kamangar discloses that:

- *the request was generated by a requesting web page (see Page 2, Paragraph 0025, second and fourth sentences → Kamangar discloses this limitation in that the system comprises a content server that submits requests for ads), and*
- *the step of determining a nominal value of the candidate component as a function of a relevancy of the candidate component to the request comprises determining a nominal value of the candidate component based on a relevancy of the candidate component to the requesting web page (see Page 3, Paragraph 0033, fifth sentence → Kamangar discloses this limitation in that the system comprises ad serving operations that may use relevancy determination operations to determine candidate ads for the request).*

*Claim 60:*

Kamangar fails to expressly disclose that:

- *the candidate component is a content candidate component.*

McElfresh teaches that:

- *the candidate component is a content candidate component* (see Pages 1-2, Paragraph 0011, last sentence → McElfresh discloses this limitation in that the system also may be used to select topic tiles),

for the purpose of optimizing revenues generated by a web page (see Page 3, Paragraph 0031).

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method, disclosed in Kamangar, to include that:

- *the candidate component is a content candidate component.*

for the purpose of optimizing revenues generated by a web page, as taught by McElfresh.

*Claim 61:*

Kamangar discloses that:

- *the step of determining a nominal value of the candidate component comprises determining a nominal value of the candidate component based on a relevance of the candidate component to a demographic profile of the user (see Page 3, Paragraph 0035 → Kamangar discloses this limitation in that the system comprises a centralized database that stores personal information about users).*

*Claim 62:*

Kamangar discloses that:

- *the step of determining a nominal value of the candidate component comprises determining a nominal value of the candidate component based on a geographic location of the user (see Page 3, Paragraph 0035, fourth sentence → Kamangar discloses this limitation in that the system comprises a centralized database that stores zip codes of users).*

*Claim 63:*

Kamangar discloses that:

- *the step of determining a nominal value of the candidate component comprises determining a nominal value of the candidate component based on a relevance*



*of the candidate component to a behavioral profile of the user (see Page 4, Paragraph 0040, third sentence → Kamangar discloses this limitation in that the system comprises a performance database that stores performance information for the ads).*

*Claim 65:*

Kamangar discloses:

- *tracking user follow-through on the web page (see Page 4, Paragraph 0040, fifth and sixth sentences; see Page 4, Paragraph 0042 → Kamangar discloses this limitation in that the system stores time-weighted performance data of the ads); and*
- *updating the nominal value of a page component on the web page in response to the tracking (see Page 4, Paragraph 0040, fifth and sixth sentences; see Page 4, Paragraph 0042 → Kamangar discloses this limitation in that the system uses the time-weighted performance data to identify the candidate ads).*

*Claim 66:*

Kamangar discloses that:

- *the step of tracking user follow-through on the web page comprises tracking link follow-through on the web page (see Page 4, Paragraph 0040, fifth and sixth*

sentences; see Page 4, Paragraph 0042 → Kamangar discloses this limitation in that the system stores click-through data for the ads).

*Claim 68:*

Kamangar discloses that:

- *the effectiveness of the page component is based on the identity of another page component on the web page* (see Page 4, Paragraph 0040, fifth sentence; see Page 5, Paragraph 0048; see Page 5, Paragraph 0050 → Kamangar discloses this limitation in that the performance parameters comprise a measure of user interest for an ad weighted for: 1) a size of the ad relative to other ads, and 2) past positions of the ad relative to the past positions of other ads. Also, the system can modify scores of ads in order to take “unique information” into account and adjust scores for new or low ranking ads, as indicated in the cited text. These actions affect the ads selected for display on the web page.).

*Claim 72:*

Kamangar fails to expressly disclose that:

- *the step of dynamically composing a web page in response to the request comprises:*
  - *using a static composition for a portion of the web page; and*

- *dynamically composing a remainder of the web page in response to the request.*

McElfresh teaches that:

- *the step of dynamically composing a web page in response to the request comprises:*
  - *using a static composition for a portion of the web page; and*
  - *dynamically composing a remainder of the web page in response to the request,*

for the purpose of optimizing revenues generated by a web page (see Page 3, Paragraph 0031).

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method, disclosed in Kamangar, to include that:

- *the step of dynamically composing a web page in response to the request comprises:*
  - *using a static composition for a portion of the web page; and*
  - *dynamically composing a remainder of the web page in response to the request,*

for the purpose of optimizing revenues generated by a web page, as taught by McElfresh.

*Claim 73:*

Kamangar fails to expressly disclose that:

- *the request uniquely identifies a web page.*

McElfresh teaches that:

- *the request uniquely identifies a web page,*

for the purpose of optimizing revenues generated by a web page (see Page 3, Paragraph 0031).

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method, disclosed in Kamangar, to include that:

- *the request uniquely identifies a web page,*

for the purpose of optimizing revenues generated by a web page, as taught by McElfresh.

*Claim 74:*

Kamangar discloses that:

- *the request comprises a search request.*

*Claim 75:*

Kamangar fails to expressly disclose that:

- *the step of making the web page available to the user comprises transmitting the web page to the user.*

McElfresh teaches that:

- *the step of making the web page available to the user comprises transmitting the web page to the user,*

for the purpose of optimizing revenues generated by a web page (see Page 3, Paragraph 0031).

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method, disclosed in Kamangar, to include that:

- *the step of making the web page available to the user comprises transmitting the web page to the user,*

for the purpose of optimizing revenues generated by a web page, as taught by McElfresh.

*Claim 76:*

Kamangar fails to expressly disclose that:

- *the step of receiving a request from a user comprises receiving a request from the user via the Internet,*
- *the step of dynamically composing a web page in response to the request comprises dynamically composing a web page in response to the request, and*
- *the step of making the web page available to the user comprises transmitting the web page to the user via the Internet.*

McElfresh teaches that:

- *the step of receiving a request from a user comprises receiving a request from the user via the Internet,*
- *the step of dynamically composing a web page in response to the request comprises dynamically composing a web page in response to the request, and*
- *the step of making the web page available to the user comprises transmitting the web page to the user via the Internet,*

for the purpose of optimizing revenues generated by a web page (see Page 3, Paragraph 0031).

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method, disclosed in Kamangar, to include that:

- *the step of receiving a request from a user comprises receiving a request from the user via the Internet,*
- *the step of dynamically composing a web page in response to the request comprises dynamically composing a web page in response to the request, and*
- *the step of making the web page available to the user comprises transmitting the web page to the user via the Internet,*

for the purpose of optimizing revenues generated by a web page, as taught by McElfresh.

*Claim 77:*

Claim 77 corresponds to the subject matter recited in Claim 51. Thus, Kamangar, in view of McElfresh, disclose/teach every limitation of Claim 77, as indicated in the above rejection for Claim 51.

*Claim 78:*

Kamangar discloses that:

- *the step of receiving the request from a user comprises receiving a request from a web server on behalf of a browser operated by the user (as indicated in the above rejection of Claim 53, Kamangar discloses this limitation), and*

- *the step of making the web page available to the user comprises identifying the subset of candidate page components to the web server for composition of the web page (Kamangar discloses this limitation in that the system “identifies” the ads to be displayed on the web page when it “selects” the ads).*

*Claim 79:*

Kamangar discloses that:

- *the received information comprises a category for classifying a page component in said plurality of page components (see Page 2, Paragraph 0025, last sentence; see Page 3, Paragraph 0030 → Kamangar discloses this limitation in that the system categorizes content requests submitted by users and matches ads accordingly), and*
- *the step of identifying a set of candidate components from the database of page components comprises identifying the candidate component based at least in part on the category of each page component in the database of page components (see Page 2, Paragraph 0025, last sentence; see Page 3, Paragraph 0030 → Kamangar discloses this limitation in that the system categorizes content requests submitted by users and matches ads accordingly).*



*Claim 82:*

Kamangar discloses that:

- *for each page component in at least a portion of the page components in the plurality of page components, the received information comprises relevant date information for the page component (see Page 2, Paragraph 0026, last sentence → Kamangar discloses this limitation in that the system transmits information concerning impression time and impression data).*

*Claim 83:*

Kamangar discloses that:

- *the received information comprises a target demographic for each page component in the plurality of page components, and*
- *the nominal value for each page component is a fifth function of a match between the target demographic and a demographic profile of the user (see Page 3, Paragraph 0030, third sentence → Kamangar discloses this limitation in that the system demographically targets ads. Additionally, the programmer responsible for creating/maintaining the ad-serving operations may set up/adjust the ad-selection criteria to target a particular demographic.).*

*Claim 84:*

Kamangar discloses that:

- *the received information comprises a subject matter descriptor for a first page component in the plurality of page components, and*
- *the step of identifying a set of candidate components from the database of page components comprises identifying the first page component based at least in part on the subject matter descriptor for the first page component (see Page 3, Paragraph 0032, third sentence → Kamangar discloses this limitation in that the system comprises a search engine that matches ads with search results based on the search criteria entered by the user).*

*Claim 85:*

Kamangar discloses that:

- *the subject matter descriptor comprises a keyword (see Page 3, Paragraph 0032, third sentence → Kamangar discloses this limitation in that the system comprises a search engine that matches ads with search results based on the search criteria entered by the user).*

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*Claim 86:*

As indicated in the above rejection, Kamangar, in view of McElfresh, disclose/teach every limitation of Claim 77.

Kamangar, in view of McElfresh, fails to expressly disclose/teach that:

- *the received information is in a format based on a predefined template.*

However, the examiner takes **Official Notice** that it was well-known to one of ordinary skill in the art (e.g., a computer programmer who writes code for webcrawlers) at the time the invention was made to design a webcrawler that uses a “*format based on a predefined template*” to collect information about web page components. The “*format based on a predefined template*” allows the webcrawler software to index the web page components more efficiently. The system disclosed in Kamangar comprises a search engine and is thus combinable with webcrawler technology.

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method, disclosed/taught in Kamangar, in view of McElfresh, to include that:

- *the received information is in a format based on a predefined template,*  
for the purpose of facilitating the indexing of the crawled web page components.

The examiner also takes Official Notice that it was well-known to one of ordinary skill in the art (e.g., a computer programmer who writes code for data entry) at the time the invention was made to design a data entry software module that uses a "*format based on a predefined template*" to collect data from users. The recited claim language, "*format based on a predefined template*," reads on data entry forms, which facilitate data entry by presenting a user-friendly interface to the user. The system disclosed in Kamangar allows user to enter data into the system and is thus combinable with data entry technology.

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method, disclosed/taught in Kamangar, in view of McElfresh, to include that:

- *the received information is in a format based on a predefined template,*
- for the purpose of facilitating data entry.

*Claim 87:*

Kamangar discloses that:

- *the received information is received via a predefined application program interface* (see Page 3, Paragraph 0030, fourth sentence → Kamangar discloses this limitation in that the system allows advertisers to interface with the system).

*Claim 88:*

As indicated in the above rejection, Kamangar, in view of McElfresh, disclose/teach every limitation of Claim 77.

Kamangar, in view of McElfresh, fails to expressly disclose/teach that:

- *the step of receiving information describing the plurality of page components comprises:*
  - *crawling through a network of web pages; and*
  - *generating information describing the plurality of page components within the network of web pages.*

However, the examiner takes **Official Notice** that it was well-known to one of ordinary skill in the art (e.g., a computer programmer who writes code for in the areas of search engines and indexed databases) at the time the invention was made to use a webcrawler to populate a database with relevant data and generate information describing the data. The "*information describing*" the crawled data (e.g., web page components) allows the webcrawler software to index the data so that a user may subsequently search the data more efficiently. The system disclosed in Kamangar comprises a search engine and is thus combinable with webcrawler technology.

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method, disclosed/taught in Kamangar, in view of McElfresh, to include that:

*receiving information describing the plurality of page components [that] comprises:*

- *the step of receiving information describing the plurality of page components comprises:*
  - *crawling through a network of web pages; and*
  - *generating information describing the plurality of page components within the network of web pages,*

for the purpose of facilitating the indexing of the crawled data so that a user may subsequently search the data more efficiently.

*Claims 90-97:*

Claims 90-97 merely recite a computer system that performs the methods of Claims 51, 55, 58, 61, 63, 65, 68 and 77, respectively. The systems disclosed/taught in Kamangar and McElfresh operate via computer systems. Thus, Kamangar, in view of McElfresh, disclose/teach every limitation of Claims 90-97, as indicated in the above rejections for Claims 51, 55, 58, 61, 63, 65, 68 and 77.

*Claim 98:*

Kamangar discloses that:

- *the management server further comprises instructions for communicating a component registration change to the runtime server (see Page 3, Paragraph 0030, fourth sentence; see Page 5, Paragraph 0048 → Kamangar discloses this limitation in that the system allows advertisers to modify variables used to determine scores for ads. Additionally, the programmer responsible for creating/maintaining the ad-serving operation may set up/adjust the ad-selection criteria to target a particular demographic.).*

Claims 64, 70 and 80 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kamangar, in view of McElfresh, and further in view of Aggarwal et al., U.S. Patent No. 6,714,975 (hereinafter, Aggarwal).

*Claim 64:*

As indicated in the above rejection, Kamangar, in view of McElfresh, discloses/teaches every limitation of Claim 58.

Kamangar, in view of McElfresh, fails to expressly disclose/teach that:

- *the candidate component has a plurality of versions, and*
- *the step of determining a nominal value of the candidate component comprises determining a nominal value of the candidate component based on the version of the candidate component placed on the web page.*

Aggarwal teaches a *method for building a web page* (see Column 1, Lines 9-12

→ Aggarwal teaches this limitation, as clearly indicated in the cited text), *comprising:*

- *identifying a candidate component [that] has a plurality of versions* (see Column 5, Lines 29-31; see Column 8, Lines 35-37 → Aggarwal teaches this limitation in that the system comprises a self-learning analyzer that takes into account different versions of an ad); *and*
- *determining a nominal value of the candidate component [that] comprises determining a nominal value of the candidate component based on the version of the candidate component placed on the web page* (see Column 9, Lines 16-32 →



Aggarwal teaches this limitation in that the system assigns ads to web pages according to client characteristics and self-learned data), for the purpose of dynamically assigning advertisements to appropriate slots on appropriate web pages based on a characteristic of the requesting client (see Column 2, Lines 33-38).

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method, disclosed/taught in Kamangar, in view of McElfresh, to include that:

- *the candidate component has a plurality of versions, and*
- *the step of determining a nominal value of the candidate component comprises determining a nominal value of the candidate component based on the version of the candidate component placed on the web page,*

for the purpose of dynamically assigning advertisements to appropriate slots on appropriate web pages based on a characteristic of the requesting client, as taught by Aggarwal.

*Claim 70:*

As indicated in the above rejection, Kamangar, in view of McElfresh, discloses/teaches every limitation of Claim 58.

Kamangar, in view of McElfresh, fails to expressly disclose/teach:

- *for at least one page component, selecting a version of the page component.*

Aggarwal teaches *a method for building a web page* (see Column 1, Lines 9-12

→ Aggarwal teaches this limitation, as clearly indicated in the cited text), *comprising:*

- *selecting a subset of the candidate components for placement on the web page as page components,*

*wherein the selecting comprises, for at least one page component, selecting a version of the page component* (see Column 5, Lines 29-31; see Column 8, Lines 35-37; see Column 9, Lines 16-32 → Aggarwal teaches this limitation in that the system comprises a self-learning analyzer that takes into account different versions of an ad and assigns the ads to web pages according to client characteristics and self-learned data), for the purpose of dynamically assigning advertisements to appropriate slots on appropriate web pages based on a characteristic of the requesting client (see Column 2, Lines 33-38).

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method, disclosed/taught in Kamangar, in view of McElfresh, to include:

- *for at least one page component, selecting a version of the page component,*

for the purpose of dynamically assigning advertisements to appropriate slots on appropriate web pages based on a characteristic of the requesting client, as taught by Aggarwal.

*Claim 80:*

Claim 80 corresponds to the subject matter recited in Claims 64 and 70. Thus, Kamangar, in view of McElfresh, and further in view of Aggarwal, disclose/teach every limitation of Claim 80, as indicated in the above rejections for Claims 64 and 70.

Claim 71 and 81 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kamangar, in view of McElfresh, further in view of Aggarwal, and further in view of Llach, U.S. Patent Application Publication No. US 2004/0186776 (hereinafter, Llach).

*Claim 71:*

As indicated in the above rejection, Kamangar, in view of McElfresh, and further in view of Aggarwal, discloses/teaches every limitation of Claim 70.

Kamangar, in view of McElfresh, and further in view of Aggarwal, fails to expressly disclose/teach that:

- *the step of selecting a version of the page component is based on an available bandwidth for the user.*

Llach teaches *a method for building a web page* (see Figures 2 and 3; see Page 1, Paragraph 0009 → Llach teaches this limitation, as clearly indicated in the cited figures and text), *comprising:*

- *selecting a version of a page component,*

*wherein the selecting is based on an available bandwidth for the user* (see Page 2, Paragraph 0021; see Page 3, Paragraphs 0026 and 0029 → Llach teaches these limitations in that the system selects ads for a variety of media, including personal computers, mobile telephones and PDAs),  
for the purpose of maximizing advertising revenue (see Page 1, Paragraph 0006).

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method, disclosed/taught in Kamangar, in view of McElfresh, and further in view of Aggarwal, to include that:

- *the step of selecting a version of the page component is based on an available bandwidth for the user,*

for the purpose of maximizing advertising revenue, as taught by Llach.

*Claim 81:*

Claim 81 corresponds to the subject matter recited in Claim 71. Thus, Kamangar, in view of McElfresh, further in view of Aggarwal, and further in view of Llach

disclose/teach every limitation of Claim 81, as indicated in the above rejection for Claim 71.

***Comment Regarding the Recited Subject Matter of Claims 99-101***

As indicated in the above rejections for Claims 99-101 under 35 U.S.C. 112, the recited subject matter of the claims is both nonenabling and indefinite. Therefore, at this point in prosecution, the examiner is unable to comment upon the possible allowability of the subject matter recited in the claims.

***Response to Arguments***

Applicant's arguments filed 09/28/2006 have been fully considered but they are not persuasive.

***Rejections Under 35 U.S.C. § 101:***

The examiner has withdrawn the 101 rejections previously set forth for Claims 51, 52, 54-71, 77-88 and 89. Thus, Applicant's arguments with respect to those claims are moot.

However, Applicant addresses the examiner's observation that "the Specification of the present invention fails to give a single example any concrete, objective,

mathematical formula used to calculate the 'nominal value' of a web page component" by indicating that the Specification states, "one alternative is to express the nominal value in dollars per impression" (see Specification → Paragraph 0042). Applicant then observes "dollars per impression or cost per impression is a widely known metric in the online advertising industry." See *Response* – Page 17, last partial paragraph.

The examiner agrees with Applicant's observation that "dollars per impression or cost per impression is a widely known metric in the online advertising industry." However, Figures 4B and 5B in the present application, indicate a "nominal value" of 95 for the "SARS story" and a "nominal value" of 80 for the "Sky banner Health Insurance External Ad." These "nominal values" for these page components seem not to be measured in "dollars per impression" or "cost per impression," as explained in the following discussion.

Firstly, even if the "nominal values" indicated in Figures 4B and 5B are measured in "dollars per impression" or "cost per impression," this metric is simply the "unit of measurement." The formula used to calculate the "nominal values" is still unknown. Applicant should address this observation in the response to this Office Action.

Secondly, "content" components (i.e., the "SARS story") generally are not measured in "dollars per impression" or "cost per impression." "Content" components are clicked on very frequently by users and generally do not result in sales to the users. The examiner notes that the "nominal value" for the "SARS story" is 95 (see Figures 4B and 5B). Does the number value "95" indicate that every time a user clicks on the

“SARS story” a web content provider receives \$95 in compensation? Applicant should address this question in the response to this Office Action.

Thirdly, the “nominal values” for the page components in Figures 4B and 5B are much too high to be a measure in “dollars per impression” or “cost per impression.” If the health insurance company of the “Sky banner Health Insurance External Ad” had to pay \$80 (see Figures 4B and 5B) to a web content provider every time a user clicked their banner ad, then the company would very quickly go into bankruptcy. Applicant should address this observation in the response to this Office Action.

For these reasons, the examiner does not believe the “nominal values” indicated in Figures 4B and 5B are measured under the metric of “dollars per impression” or “cost per impression.” Rather, the examiner believes the “nominal values” indicated in Figures 4B and 5B are arbitrarily assigned by a computer programmer.

Applicant also addresses the examiner’s observation that “the Specification of the present invention fails to give a single example any concrete, objective, mathematical formula used to calculate the ‘effectiveness’ of a web page component” by indicating that the Specification states, “simple mathematical models can be formulated, such as using the sum of the squares of the areas occupied by different components as a measure of the unclutteredness” (see Specification → Paragraph 0047). See *Response* – Page 18, second full paragraph.

The “sum of the squares of the areas occupied by different components” does not equate to a formula for measuring the “effectiveness” of a web page component, as explained in the following discussion.

Firstly, this portion of the Specification cited by Applicant indicates a way to measure the “clutter” of a web page, not the “effectiveness” of an individual web page component. “Clutter” is one factor that is used to determine “effectiveness.” Another factor used to determine “effectiveness” is “placement” (see Specification → Page 12, Paragraph 0043). In other words, “clutter” does not equal “effectiveness;” rather, it is only one factor used to determine “effectiveness.” Applicant should address this observation in the response to this Office Action.

Secondly, it is unclear which web page components comprise the “different components” specified in the cited portion of the Specification. Based on the disclosure of this “formula,” the examiner has two questions: 1) do the “different components” comprise all of the web page components on the web page?; 2) if not, then which web page components do the “different components” comprise, and how are those web page components selected? Applicant should address these questions in the response to this Office Action.

Thirdly, as indicated in Figures 4B and 5B, each individual web page component has its own measure of “effectiveness” that is a number value. The examiner does not understand how the “sum of the squares of the areas occupied by different components” can be used to calculate these numbers of the “effectiveness” for each web page component. In the examples specified in the Specification, the



"unclutteredness" equals number values of 100 and 10,000. However, in Figures 4B and 5B, the "effectiveness" of each individual web page component equals 50%, 15%, 5%, etc. These "calculations" do not correspond, if the same formula is being used to calculate those values. Applicant should address these observations in the response to this Office Action.

For these reasons, the examiner does not believe the "sum of the squares of the areas occupied by different components" equates to a formula for measuring the "effectiveness" of a web page component. Rather, the examiner believes that the formula used to calculate the "effectiveness" for the individual web page components is not included in the Specification of the present invention.

*Rejections Under 35 U.S.C. § 112:*

Applicant's arguments against the rejections based on 35 U.S.C. 112, second paragraph, correspond to Applicant's observations indicated in the above discussion. As indicated in the above discussion, the examiner disagrees that the amendments to independent Claims 51, 77 and 90 obviate the rejections.

*Rejections Under 35 U.S.C. § 102(e):*

Applicant's arguments with respect to Claims 50-55, 69, 72, 73, 75-79, 82, 83, 89-91, 97 and 98 have been considered but are moot in view of the new grounds of rejection. However, because the same references are used in the new grounds of rejection, the examiner will address Applicant's arguments against the individual references for the purpose of forwarding prosecution of the application.

*Arguments Regarding McElfresh*

Applicant argues that McElfresh fails to disclose creating a default web page composition and then eliminating components from the default composition if they increase the actual value of the page. Applicant supports the argument by observing that the system in McElfresh appends HTML code to the web page rather than removing existing web page components. See *Response* – Page 19, second paragraph.

The examiner disagrees.

The system in McElfresh requests and obtains possible ads and/or content material based upon various information, such as user information, demographic information, time of day, etc. The system then ranks the ads according to various arrangement methods including click-through percentage for the ads and click-through percentage multiplied by the price-per-click for the ads. The rankings include lists of possible assignments of ads to particular ad spots and are sorted in descending order of expected revenue.

The lists of possible assignments of ads to particular ad spots in the requested web page are the equivalent of the recited “*default composition of the web page*” (see Claim 51, Lines 6-7).

Subsequently, the system fills available ad spots on the requested web page so that the web page is optimized for increased click-throughs and/or increased revenue generation. Therefore, only the ads that increase the value of the web page are used in the display of the requested web page.

The eliminations of those listed ads that are not displayed on the web page is the equivalent of eliminating components from the default composition if they increase the actual value of the page.

Applicant appears to argue that the system in McElfresh fails to calculate an actual page value because it merely calculates individual values for each ad and then orders the ads in a specific fashion. Since the optimization of the web page components is order dependent, Applicant argues, an actual page value cannot be calculating by summing the individual page component values, since doing so would yield the same total regardless of the order of the page components. See *Response* – Page 19, third paragraph.

The examiner disagrees.

Firstly, the examiner cannot follow Applicant’s line of reasoning with regard to the “actual page value” being the same regardless of the order of the “order dependent” page components. Whether the ads are placed in an order does not rule out

“optimizing” an “actual page value” of the web page (as recited in Claim 51, Lines 10-11). One may argue that determining a value-based order for the candidate ads would **facilitate** the “*optimization of an actual page value*” of the web page.

Secondly, the examiner notes that the claims do not recite “calculating” an **actual** page value of the web page. Rather, the claims recite “optimizing” an actual page value of the web page (see Claim 51, Lines 10-11), wherein the actual page value is a function of the actual value of each page component placed on the web page (see Claim 51, Lines 14-15).

McElfresh expressly discloses a system for optimizing the value of a web page by selecting components for placement on the web page, wherein the components are selected from a set of possible components, and further wherein the selection is based upon various information, such as contracts, pricing information, click-through percentages, web page constraints, demographic information, etc. associated with the components.

At least by **optimizing** values of web pages through selection of components from a set of possible components for placement on the web page, wherein the selection is based upon various information, such as contracts, pricing information, web page constraints, demographic information, etc. associated with the components, McElfresh discloses a selection of ads that is “*determined by an optimization of an actual page value of the web page*” (see Claim 51, Lines 10-11), “*wherein the actual page value of the web page is a function of a respective actual value of each page component placed on the web page*” (see Claim 51, Lines 14-15).

Applicant argues that the system in McElfresh fails to calculate an actual value of the **entire** web page because it calculates the value of individual components on the page and not an **actual** value of the page **as a whole** (emphasis added). Applicant argues that McElfresh “assumes” that ordering of individual ads optimizes the page value as a whole. However, Applicant argues, McElfresh does not disclose the use of an empirical method for demonstrating that the value of the page as a whole has been optimized. See *Response* – Page 19, fourth partial paragraph through Page 20, first partial paragraph.

The examiner disagrees.

Firstly, the examiner notes that the claims do not recite “calculating” an **actual** page value of the web page **as a whole**. Rather, the claims recite “optimizing” an actual page value of the web page (see Claim 51, Lines 10-11), wherein the actual page value is a function of the actual value of each page component placed on the web page (see Claim 51, Lines 14-15).

McElfresh expressly discloses a system for optimizing the value of a web page by selecting components for placement on the web page, wherein the components are selected from a set of possible components, and further wherein the selection is based upon various information, such as contracts, pricing information, web page constraints, demographic information, etc. associated with the components.

At least by **optimizing** values of web pages through selection of components from a set of possible components for placement on the web page, wherein the selection is based upon various information, such as contracts, pricing information,

click-through percentages, web page constraints, demographic information, etc. associated with the components, McElfresh discloses a selection of ads that is *“determined by an optimization of an actual page value of the web page”* (see Claim 51, Lines 10-11), *“wherein the actual page value of the web page is a function of a respective actual value of each page component placed on the web page”* (see Claim 51, Lines 14-15).

Secondly, with regard to Applicant’s argument that McElfresh does not disclose the use of an **empirical** method, the term “empirical” means “based on observation or experience.” McElfresh expressly discloses a system for optimizing the value of a web page by selecting components for placement on the web page, wherein the selection is based upon at least click-through percentages.

At least by using click-through percentages for the possible components in order to select the components for insertion into the web page, McElfresh discloses use of an empirical method for optimizing the value of the web page.

#### *Arguments Regarding Kamangar*

Applicant argues that Kamangar fails to teach selecting components for placement on the web page based on the optimization of an actual value of the page as a whole because the system focuses on individual values of web page components and ordering those values. Since the optimization of the web page components is order dependent, Applicant argues, an actual page value cannot be determined by calculating

a sum of the individual page component values, since doing so would yield the same actual page value regardless of the order of the page components. See *Response* – Page 20, last partial paragraph through Page 21, first partial paragraph.

The examiner disagrees.

Firstly, the examiner cannot follow Applicant's line of reasoning with regard to the "actual page value" being the same regardless of the order of the "order dependent" page components. Whether the ads are placed in an order does not rule out "optimizing" an "actual page value" of the web page (as recited in Claim 51, Lines 10-11). One may argue that determining a value-based order for the candidate ads would **facilitate** the "*optimization of an actual page value*" of the web page.

Secondly, Kamangar expressly discloses **optimization** operations to select a final **set** of one or more web page components from the candidate components. This optimization is at least partly based on the individual values of the components, as admitted by Applicant, and the individual values of the components are based on at least price information and/or performance information.

By using **optimization** operations to select a final **set** of one or more web page components from the candidate components for insertion into the web page, wherein the optimization is at least partly based on the individual values of the components, further wherein the individual values of the components are based on at least price information and/or performance information, Kamangar discloses a selection of ads that is "*determined by an optimization of an actual page value of the web page*" (see Claim 51, Lines 10-11), "*wherein the actual page value of the web page is a function of a*

*respective actual value of each page component placed on the web page*" (see Claim 51, Lines 14-15).

Applicant argues that Kamangar fails to teach calculating an actual value of the entire page **as a whole**, because Kamangar merely teaches a method to calculate the value of the **individual** components on the page (emphasis added). Applicant argues that the methods disclosed in Kamangar "assume" that the page value is optimized as a whole. However, Applicant argues, Kamangar does not teach the use of an empirical method for demonstrating that the value of the page as a whole has been improved/optimized. See *Response* – Page 21, first full paragraph.

The examiner disagrees.

Firstly, the examiner notes that the claims do not recite "calculating" an **actual** page value of the web page **as a whole**. Rather, the claims recite "optimizing" an actual page value of the web page (see Claim 51, Lines 10-11), wherein the actual page value is a function of the actual value of each page component placed on the web page (see Claim 51, Lines 14-15).

Kamangar expressly discloses **optimization** operations to select a final **set** of one or more web page components from the candidate components. This optimization is at least partly based on the individual values of the components, as admitted by Applicant, and the individual values of the components are based on at least price information and/or performance information.



At least by using **optimization** operations to select a final **set** of one or more web page components from the candidate components for insertion into the web page, wherein the optimization is at least partly based on the individual values of the components, further wherein the individual values of the components are based on at least price information and/or performance information, Kamangar discloses a selection of ads that is “*determined by an optimization of an actual page value of the web page*” (see Claim 51, Lines 10-11), “*wherein the actual page value of the web page is a function of a respective actual value of each page component placed on the web page*” (see Claim 51, Lines 14-15).

Secondly, with regard to Applicant's argument that Kamangar does not teach the use of an **empirical** method, the term “empirical” means, “based on observation or experience.” Kamangar expressly discloses **optimization** operations to select a final set of one or more web page components from the candidate components, wherein this optimization is at least partly based on the individual values of the components, as admitted by Applicant, and further wherein the individual values of the components are based on at least **price information** and/or **performance information**.

At least by using performance information for the individual candidate components in order to select the components for insertion into the web page, Kamangar discloses use of an empirical method for optimizing the value of the web page.

In order to assist Applicant in preparing a response to this Office Action, the examiner reminds Applicant that one cannot show nonobviousness by attacking references *individually* where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Thus, Applicant must not submit arguments against the references individually in response to this Office Action.

### ***Conclusion***

Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Doug Hutton whose telephone number is 571-272-4137. The examiner can normally be reached on Monday-Friday from 8:00 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Herndon, can be reached at (571) 272-4136. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2100.

WDH

December 10, 2006



**Doug Hutton  
Primary Examiner  
Technology Center 2100**